

REMARKS

Summary Of The Office Action & Formalities

Status of Claims

Claims 1-3 and 6-22 are all the claims pending in the application. By this Amendment, Applicant is amending claim 6 to correct a typographical error. No new matter is added.

Additional Fees

Submitted herewith is a Petition for Extension of Time with fee.

Claim Rejections - § 112

Claims 6-9 are rejected under 35 U.S.C. § 112, second paragraph, for the reason set forth at page 2 of the Office Action. Claim 6 includes an obvious typographical error, and the Examiner has correctly interpreted claim 6 to depend from claim 1. Applicant is amending the claim to correct the dependency.

Art Rejections

1. Claims 1-3 and 6-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Walker et al. (US 5,564,414) in view of Barberi et al. (US 6,327,017), and further in view of Liou (US 5,895,159).

2. Claims 1-3 and 5-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of copending Application No. 10/532,073. As stated in Applicant's response filed October 8, 2008, Applicant will address this rejection as necessary, if copending Application No. 10/532,073 results in claims that are unpatentable over claims in the present application based on nonstatutory obviousness-type double patenting, but otherwise allowable.

Applicant respectfully traverses the rejection under 35 U.S.C. § 103..

Claim Rejections - 35 U.S.C. § 103

1. Claims 1-3 And 6-21 Over Walker et al. (US 5,564,414) In View Of Barberi et al. (US 6,327,017), And Further In View Of Liou (US 5,895,159).

In rejecting claims 1-3 and 6-21 over Walker et al. (US 5,564,414) in view of Barberi et al. (US 6,327,017), and further in view of Liou (US 5,895,159), the grounds of rejection state:

Regarding claims 1, 2, 3, 10, 12, 13-17, 21, and 22, Walker et al. discloses a fluid dispensing device comprising a body (12, 112) incorporating a dispenser orifice, a reservoir (13) containing the fluid, and a dispensing member (metering valve/stem of MD1), the device being further characterized in that it comprises a dose indicator with an LCD display means (column 7, lines 30-35) that displays the number of doses delivered to the patient (abstract). A switch controls the LCD screen such that upon actuation of the dispensing member by a user, two portions of the switch (135) contact each other and an electric pulse is sent to the counting device (130) to change the LCD display (column 7, lines 40-50).

Walker et al. is silent as to the display requiring no energy to keep the display unchanged and only a small amount of energy to change it. However, Barberi et al. discloses a bistable nematic liquid crystal display for use small portable devices (see column 19, lines 50-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a bistable nematic LCD as taught by Barberi et al. in place of the LCD of Walker et al. in order to preserve power. The modified reference would require no energy to keep the display unchanged and only a small electric pulse to change it.

Furthermore, the modified Walker et al. reference does not disclose that the energy to change the display is created by the contacting portions of the switch to create the energy while the device is being actuated and that no battery is required to operate the device. However, Liou discloses a current producer (60) that produces an instantaneous current upon a pressing bar (31) striking an internal flint (column 2, lines 47-53) in order to avoid the use of an external power source (column 1, lines 45-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have replaced the battery and switch

mechanism of the modified Walker et al. device with a pressing bar and flint current producer as taught by Liou in order to produce the electric pulse needed to change the LCD display without the need for an external power supply (i.e., by replacing the “striking bar” and “contacting portion” of Walker et al. seen in Figure 3B with the pressing bar and flint of Liou, respectively).

Regarding claim 11, the dose indicator disclosed by Walker et al. is thin in structure (see figure 2A).

Regarding claim 6, the electric producer of Liou transforms the mechanical movement of the striker pin into an electric pulse that would be used to change the display in the modified device.

Regarding claims 7 and 18, the interaction in the modified device would involve one portion of the device (pressing bar) striking against another portion (flint) of the device during actuation.

Regarding claims 8, 9, 19, and 20, the reservoir and striker pin are displaceable relative to the body (i.e., user presses top of reservoir/pin/pressing bar to actuate dispensing) and the contacting portion (flint) is located on the body and unable to move relative to the body (see Figures 3B and 3D). In addition, Walker et al. discloses a spring for biasing the striker pin away from the contacting portion (see figure 3D).

Office Action at pages 2-4.

Claim 1 states: “said display means (20) including a permanent display member (21) that does not require any energy in order to keep the display unchanged, and that requires only a small amount of energy in order to change said display; and wherein said indicator operates without a battery; and the energy required to change the display is created while the device is being actuated during actuation of the fluid dispenser member.”

Claim 13 states: “a dose indicator comprising an electronic display, the display comprising a permanent display member that does not require energy to keep the display unchanged and that requires electrical energy to change the display; and wherein the electrical energy required to change the display is generated during actuation of the fluid dispenser

member by interaction between two physical portions of the device moving relative to each other.”

The Examiner concedes that none of the applied three patents disclose the above features, but relies on a combination of these three patents to piece together the claimed subject matter. However, there is no reasonable rationale as to why it would be obvious to a person of ordinary skill to alter the references in the manner set forth in the grounds of rejection. In fact, the applied patents, taken individually or as a whole, *teach away from the claimed invention*. Moreover, even if such alterations were made, the skilled artisan would not arrive at the claimed invention.

Walkeret al. discloses a Metered Dose Inhaler (MDI) with an electronic counter. This counter uses a conventional LCD display, which is actuated by closing an electronic microswitch. The closing of the microswitch is provided by contact: as long as the contact is maintained, the switch and thus the electrical circuit is closed, and when the contact is removed, the switch and thus the electrical circuit is opened again (see col. 7, l. 36-52).

Barberi et al. discloses bistable LCD devices having monostable anchorings. Electrical fields defined between electrodes are used to operate these devices; Barberi et al. mentions the application of display screens in portable devices, like mobile telephones, electronic organizers or diaries, as well as video applications. All these applications clearly require complex screens with multiple information display and thus *electrical power or energy to operate*. With portable devices, it is explicitly stated that the screen must be refreshed as infrequently as possible in order to preserve the power (col. 19, l. 50-54).

Liou discloses a heat-melting glue gun having a current producer able to create a short-circuit spark *to ignite gas jetting from a nozzle and the spark is created by striking a flint with a pressing bar*, thus producing instantaneous electric current which is then directed towards

electrodes provided near the nozzle (see col. 2, l. 47-60); the current producer requires a separate actuation than the glue gun.

One skilled in the art, starting with Walker et al. having a LCD display for counting the doses, would not have looked to Barberi et al., disclosing much more complex screens. The fact that Barberi et al. mentions the use in mobile phone screens or the like is not sufficient to suggest modification in view of this document. Indeed, one skilled in the art, when trying to improve a simple counter display, which typically displays only a three-digit number, would have no reason to consider such complex phone screens displaying various information at the same time. Moreover, even if one skilled in the art would have considered Barberi et al., then that person would have been motivated to keep the built-in energy source (battery), as Barberi et al. does not disclose any device that operates without such built-in energy source.

The Examiner further states that Walker and Liou both deal with dispensing devices that utilize an electric pulse sent/created by mechanically contacting two portions of the device. Again, this is not enough to motivate the skilled person to look to the non-analogous Liou patent. In Walker et al., there is a switch that is closed, in the same way as when a light is switched on, by closing an electric circuit powered by a battery. In Liou, there is a spark that is created by an impact of one element on another. For one skilled in the art to have looked to Liou for a technical solution, that person, starting from Walker et al., would have required some rationale, hint or motivation to search a document concerning glue guns. Further, nothing in Walker et al. indicates that the electric power supply is inadequate or should be replaced. Moreover, even when considering the non-obvious combination of Walker et al. and Barberi et al., again the message to one skilled in the art is to *keep an electric power supply to power the LCD screen.*

It is thus completely artificial to consider a combination of Walker et al., Barberi et al. and Liou in order to anticipate the claimed invention.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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